

Appendix to Proposed BP-18 GRSP Clarification

GRSP Clarification

M. Low Density Discount (LDD)

1. Application and Definitions

For eligible Customers, as defined in section 2 below, a Low Density Discount (LDD) shall be applied each billing month to the PF-16 Composite Customer charge, PF-16 Non-Slice Customer charge, PF-16 Load Shaping charge, PF-16 Load Shaping Charge True-Up Adjustment, and PF-16 demand charge. The LDD also applies to eligible Customers under the PF-16 Melded rate schedule and the NR-16 rate schedule. The LDD shall be applied to only those charges listed in this GRSP I.I.M.

For Load Following and Block purchases, the applicable discount percentage will apply to all charges for purchases by the Customer under the Tier 1 rates (Composite Customer charge, Non-Slice Customer charge, Load Shaping charge, Load Shaping Charge True-Up Adjustment, and demand charge). The applicable discount percentage will be adjusted for Above-High Water Mark load, as described in section 6 below.

For Slice/Block purchases, an LDD dollar benefit will be calculated by BPA as though it was a Load Following purchase. BPA will use the Customer's previous fiscal year's load data to calculate an annual LDD dollar benefit amount. This amount will be divided by 12 to derive a monthly LDD dollar credit, which will be applied to the Customer's monthly power bills over the next 12 months. There will be no separate Slice and Block LDD benefits calculated. The applicable discount percentage will be adjusted for Above-High Water Mark load, as described in section 6 below.

The eligible and applicable discount percentages shall be revised annually based on data supplied by June 30 of each calendar year (CY) for the previous calendar year and shall become effective on the following October 1.

The calculation of the ratios below shall be based on calendar year data the Customer provides from its annual financial and operating reports (*e.g.*, Rural Utilities Service Financial and Operating Report - Electrical Distribution, National Rural Utilities Cooperative Finance Corporation Financial and Statistical Report (CFC Form 7), audited financial report, or Annual Report). The provided annual financial and operating reports shall include the Customer's Total Retail Load, depreciated electric plant, number of consumers, pole miles of distribution lines, total kilowatthours sold, and total electric retail sales revenue. The annual financial and operating report is to be enclosed with the Customer's calendar year data if not previously submitted to BPA. The Customer shall certify that the data submitted is true and correct.

Load acquired by a Customer as a direct result of retail access rights established by Federal, state, or local legislation, that would not otherwise have been acquired absent such legislation, is not eligible to receive the benefits provided by the LDD. The Customer shall certify that the data submitted does not include such load. The Customer shall not pass the benefits of the LDD to such acquired consumers.

In calculating the ratios below, BPA shall compile the data submitted by the Customer based on the Customer's entire electric utility system in the Pacific Northwest (PNW). For Customers with service territories that include any areas outside the PNW, BPA shall compile data submitted by the Customer separately on the Customer's system in the PNW and on the Customer's entire electric system, including areas outside the PNW. BPA shall apply the eligibility criteria and discount percentages to the Customer's system within the PNW and, where applicable, also to its entire system inside and outside the PNW. The Customer's eligibility for the LDD shall be determined by the lesser amount of discount applicable to its PNW system or to its combined system inside and outside the PNW. BPA, in its sole discretion, may waive the requirement to submit separate data for the Customer with a small amount of its system outside the PNW. Results of the calculations shall not be rounded.

If a Customer does not provide BPA with the requisite information and reports by June 30 of each year for BPA to calculate the K/I and C/M ratios (see below), the Customer shall be ineligible for the LDD effective the following October 1. The Customer may reapply for the LDD in any subsequent year.

If a Customer's data and reports are submitted prior to the June 30 deadline, and a revision is necessary, the Customer must submit the revised data within 12 months of the original submission date to be considered for an adjustment.

(a) The Kilowatthour/Investment Ratio

The Kilowatthour/Investment (K/I) ratio is calculated annually based on the data the Customer supplies by June 30 of each calendar year. The K/I ratio is calculated by dividing the Customer's Total Retail Load during the previous calendar year by the value of the Customer's depreciated electric plant (excluding generation plant) at the end of the previous calendar year.

(b) The Consumers/Pole Miles Ratio

The Consumers/Pole Miles (C/M) ratio is calculated annually based on the data the Customer supplies by June 30 of each calendar year. The C/M ratio is calculated by dividing the Customer's number of consumers within the distribution system at the end of the previous calendar year, as defined below, by the number of pole miles of distribution lines at the end of the previous calendar year.

“Consumers” means the number of consumers, by classification, having a current service connection in December of each year. Residential consumers (seasonal and non-seasonal) are counted on the basis of the number of residences served. If one

meter serves two residences, then two consumers are counted. If a water heater is metered separately from other appliances on the same premises, the water heater load will not count as a separate consumer.

Security or safety lights billed to a residential consumer will not be counted as an additional consumer.

Additional meters used for net metering consumers will not be counted as an additional consumer.

Seasonal consumers expected to resume service during the next seasonal period will be counted during off-season periods as well.

A residence and commercial establishment on the same premises receiving service through the same meter and being billed under the same rate schedule would be classified as one consumer based on the rate schedule. If the same rate schedule applies to both the residential and the commercial class, the consumer should be classified according to the principal use.

Consumers for Public Street and Highway Lighting shall be counted by the number of billings, regardless of the number of lights per billing.

Pole miles of distribution lines are defined as lines that deliver electric energy from a substation or metering point at a voltage of 34.5 kV or below to the point of attachment to the consumer's wiring and include primary, secondary, and service facilities. (Service drops are considered service facilities.)

2. Eligibility Criteria

To qualify for a discount, the Customer must meet all five of the following eligibility criteria:

- (a) The Customer must serve as an electric utility offering power for resale to retail consumers.
- (b) The Customer must agree to pass the benefits of the discount through to its eligible consumers within the region served by BPA.
- (c) The Customer's average retail rate for the reporting year must exceed BPA's average Priority Firm Power rate for the most closely corresponding fiscal year by at least 25 percent, which is 41.00 mills/kWh for FY 2016 and FY 2017.
- (d) The Customer's K/I ratio must be less than 100.
- (e) The Customer's C/M ratio must be less than 12.

Each year BPA shall determine whether a Customer is eligible for a discount. Such determination shall not be dependent on whether the Customer was determined to be eligible in the previous year.

3. Determination of Eligible Discount percentage

For each Customer, an eligible discount percentage shall be determined using Table D below. The eligible discount percentage shall be the sum of the two potential discount percentages for which the Customer qualifies, based on Table D. The total eligible discount percentage shall not exceed 7 percent and may be adjusted pursuant to sections 4, 5, and 6 below.

**Table D
LDD Eligible Discount percentage**

<i>Percentage Discount</i>	<i>Applicable Range for kWh/Investment (K/I) Ratio</i>	<i>Applicable Range for Consumers/Mile (C/M) Ratio</i>
0.0%	$35.0 < X$	$12.0 < X$
0.5%	$31.5 < X \leq 35.0$	$10.8 < X \leq 12.0$
1.0%	$28.0 < X \leq 31.5$	$9.6 < X \leq 10.8$
1.5%	$24.5 < X \leq 28.0$	$8.4 < X \leq 9.6$
2.0%	$21.0 < X \leq 24.5$	$7.2 < X \leq 8.4$
2.5%	$17.5 < X \leq 21.0$	$6.0 < X \leq 7.2$
3.0%	$14.0 < X \leq 17.5$	$4.8 < X \leq 6.0$
3.5%	$10.5 < X \leq 14.0$	$3.6 < X \leq 4.8$
4.0%	$7.0 < X \leq 10.5$	$2.4 < X \leq 3.6$
4.5%	$3.5 < X \leq 7.0$	$1.2 < X \leq 2.4$
5.0%	$X < 3.5$	$X < 1.2$

4. LDD Phase-In Adjustment

If the Customer satisfies the eligibility criteria in section 2(a) through (e) above and the calculated eligible discount percentage differs from the existing eligible discount percentage by more than one-half of 1 percentage point, the applicable eligible discount percentage shall be one of the following amounts:

- (a) the existing eligible discount percentage plus a maximum of one-half percent if the calculated eligible discount percentage exceeds the existing discount; or
- (b) the existing eligible discount percentage minus a maximum of one-half percent if the calculated eligible discount percentage is less than the existing discount.

The foregoing formula shall be applied each October 1 until the existing eligible discount percentage is equal to the calculated eligible discount percentage.

The Customer is not eligible to receive any discount, effective each October, if the Customer fails to meet the eligibility criteria in sections 2(a) through (e) above. If the Customer is eligible to receive a discount in a year following a year in which the Customer was not eligible to receive the discount, then the one-half percent phase-in adjustment described above shall apply to the most recent eligible discount.

Customers receiving the LDD for the first time shall receive the full discount amount as determined in section 3.

When determining the LDD percentage pursuant to sections 3 and 4, the calculations shall not include any Additional Adjustment for Very Low Densities under section 5.

5. Additional Adjustment for Very Low Densities

If a Customer's C/M ratio is 3 or less and its K/I ratio is 26 or less, after the annual determination of the eligible discount percentage pursuant to sections 3 and 4 above, an additional one-half percent shall be added to the Customer's eligible discount percentage, not to exceed a total eligible discount of 7 percent. ~~In subsequent years, the one-half percent added to the eligible discount percentage pursuant to this section shall not be included when determining the applicable discount percentage pursuant to section 4 above.~~

6. Applicable Discount for Customers with Above-RHWM Load

A discount is not provided for the costs of power used to serve the Customer's Above-RHWM load; however, the LDD benefit will be adjusted to be approximately the same as if the Above-RHWM load was included. This adjustment modifies the Customer's eligible discount percentage. The formula used to calculate the applicable discount percentage for eligible purchases on the Customer's power bill during the rate period is:

$$\text{applicableLDD} = \text{eligibleLDD} \times \max \left(\frac{\text{adjTRL}}{\text{RHWM}}, 1.0 \right)$$

Where:

applicableLDD = the discount percentage to be applied to the Tier 1 charges on a Customer's bill

eligibleLDD = the Customer's eligible discount percentage as computed according to sections 2 through 5 above

adjTRL = the Customer's Total Retail Load less output of Existing Resources and NLSLs, as determined in the RHWM Process for the applicable fiscal year

RHWM = the Customer's Rate Period High Water Mark for the applicable fiscal year

Any Customer with *adjTRL* less than its *RHWM* will have its applicable discount percentage set equal to its eligible discount percentage.

7. Treatment for Joint Operating Entity

The LDD benefit to a JOE will be equivalent to the sum of LDD benefits for all eligible individual members of the JOE. Except for LDD benefits for Tier 1 demand, the LDD benefits for the JOE will be based on each such individual utility member's applicable discount percentage applied to all charges for purchases by the individual utility member under the Tier 1 rates according to section 1 above. The monthly LDD benefit for demand for a JOE is calculated as follows:

- (a) Each individual utility member's demand billing determinant is calculated as if such member were not a member of a JOE.

- (b) The demand billing determinants for all individual utility members are summed.
- (c) The individual utility members' calculated demand billing determinants are scaled (up or down) so that the sum of all individual utility members' calculated demand billing determinants equals the JOE's demand billing determinant.
- (d) The demand LDD benefit attributable to each eligible individual member of the JOE is equal to the member's scaled demand billing determinant multiplied by the member's applicable discount percentage and the applicable monthly Tier 1 demand charge.
- (e) The demand LDD benefits of the eligible individual members of the JOE are summed to yield the demand LDD benefit to the JOE.

U. Resource Support Services and Transmission Scheduling Service

3. Forced Outage Reserve Service (FORS) Charges

FORS is an optional service to provide an agreed-upon amount of capacity and energy to Customers that have a qualifying resource that experiences a forced outage. Unless stated otherwise, the resource amounts used in these calculations are those specified in the Customer's CHWM Contract Exhibit D (Exhibit D amounts) and are hourly average planned amounts (in MW/h) and generation planned ~~generation~~ amounts (in MWh) based on hourly generation from the most recent historical year.

(a) FORS Capacity Charge

(1) FORS Capacity Rate

<i>Month</i>	<i>Rate in \$/kW</i>
October	10.02
November	10.27
December	10.51
January	10.79
February	10.66
March	9.13
April	8.76
May	7.95
June	8.33
July	9.87
August	10.90
September	11.42

(2) FORS Capacity Billing Determinant

For each resource, the billing determinant is the monthly firm capacity multiplied by the forced outage rating. The monthly firm capacity is calculated in the manner described under the DFS Capacity billing determinant, section 1(b)(2).

(3) Calculation of FORS Capacity Charge

For each resource, the FORS Capacity Charge is calculated by multiplying the FORS Capacity Rate and the FORS Capacity billing determinant for each month. The sum of the values is divided by 12 to calculate a flat monthly charge. The FORS Capacity charge will be specified in Exhibit D of the Customer's CHWM Contract. This charge is take-or-pay, so that if a Customer can no longer apply the resource to load or if its application to load is delayed, the capacity charge shall still apply.

(b) FORS Energy Charge

(1) FORS Energy Rate

The rate for the energy provided during the first 24 hours of a forced outage will be the average of the Powerdex Mid-C hourly index prices (or its replacement) during hours of the forced outage. The rate for energy provided after the first 24 hours of a forced outage will be the diurnal Intercontinental Exchange (ICE) Mid-C Day Ahead Power Price Index (or its replacement) over the applicable diurnal period for which energy is provided. If any Mid-C price used in computing the average is less than zero, the average of the prices will be computed using a zero price for such hours.

(2) FORS Energy Billing Determinant

The FORS energy billing determinant is the total actual replacement generation a resource requires to meet the hourly average planned generation amount specified in Exhibit D of the Customer's CHWM Contract, subject to the FORS energy limits specified therein.

(3) Calculation of FORS Energy Charge

For each resource, the monthly FORS energy charge is calculated by multiplying the FORS energy rate by the FORS energy billing determinant.

(c) Resource Shaping Charge

(1) Resource Shaping Rate

The monthly/diurnal Resource Shaping rates are equal to the PF Tier 1 Load Shaping rates shown in section 2.1.3.1 of the PF-16 rate schedule.

(2) Resource Shaping Billing Determinant

The billing determinant for each resource is the difference between the ~~planned~~ monthly/diurnal generation planned amounts from Exhibit D or the shaped amounts in Exhibit A ~~amounts~~ and the annual average ~~monthly/diurnal~~ Exhibit A amounts converted to a monthly/diurnal shape (in MWh) for the same year. Generally, the Resource Shaping charge does not apply to small, non-dispatchable resources as such resources are defined in the Customer's CHWM Contract. When DFS is provided to a resource to which RRS also applies, the billing determinant for each resource is the difference between (i) the planned monthly/diurnal generation from Exhibit D amounts and (ii) the sum of the annual average Exhibit A amounts and Resource Remarketed Amounts in Exhibit D for the same year.

(3) Calculation of Resource Shaping Charge

For each resource, the Resource Shaping Charge is calculated by multiplying the Resource Shaping Rate by the Resource Shaping billing determinant for each monthly/diurnal period. The sum of the values is divided by 24 (or 12 if the service applies only in one fiscal year) to calculate a flat monthly charge.

AA. Unauthorized Increase (UAI) Charge

The Unauthorized Increase Charge is a charge to any Customer taking more power from BPA than it is contractually entitled to take.

1. Charge for Unauthorized Increase in Demand

The amount of measured demand during an HLH billing hour that exceeds the amount of demand the Customer is contractually entitled to take during that hour shall be billed at 1.25 times the applicable monthly demand rate.

The billing determinant for the UAI demand charge shall be equal to the Customer's single highest HLH demand that is in excess of the Customer's contractual demand entitlement.

For a Load Following Customer, the demand in excess of its demand entitlement shall be the shortfall of its dedicated resources delivered to load on the hour of its Customer System Peak as compared to the Customer's CHWM Contract Exhibit A amount or Exhibit D amount, whichever is applicable.

For a Block Customer or for the Block portion of the Slice/Block product, the Customer's contractual demand entitlement for each HLH shall be the sum of its Tier 1 and Tier 2 HLH predetermined hourly schedule purchase amounts, provided by BPA to the Customer in accordance with Exhibit C of the CHWM Contract.

For a Slice Customer, the Slice portion of the Slice/Block product will be subject to a demand UAI if the Slice demand is in excess of the Slice entitlement during the peak Delivery Request (Right To Power) HLH of a month. The Slice demand in excess of the Slice entitlement is measured by subtracting (i) the largest final hourly Delivery Request (Right To Power) computed using the Slice Water Routing Simulator for any HLH of a month from (ii) the hourly amount of Slice power delivery (tagged + untagged energy) from BPA for the same HLH of the same month, as such terms are defined in the Slice/Block CHWM Contract.

2. Charge for Unauthorized Increase in Energy

The amount of measured energy or Residential Exchange Program contract load that exceeds the amount of energy the Customer is contractually entitled to take during a diurnal billing period shall be billed the greater of:

- (a) 150 mills/kWh; or
- (b) Two times the highest hourly Powerdex Mid-C Index price for firm power for the month in which the unauthorized increase occurs.

In the event the hourly Powerdex Mid-C price index expires, the index will be replaced for purposes of the Unauthorized Increase charge for energy by the highest price for the month from any applicable new hourly or diurnal energy index at a hub at which Northwest parties can trade between October 1, 2015, and September 30, 2017.